

WHAT IS CLAIMED IS:

1. A cold setting coating composition comprising an urethane-modified vinyl resin (A) produced by reacting a  
5 reaction product with an isocyanate group-possessing compound (c), the reaction product is produced by reacting an epoxy group-containing vinyl copolymer (a) with a fatty acid component (b) containing an unsaturated fatty acid,

said vinyl copolymer (a) is a copolymer of a first  
10 polymerizable unsaturated monomer containing an epoxy group and a second polymerizable unsaturated monomer.

2. The cold setting coating composition according to claim 1, wherein the vinyl copolymer (a) is produced by  
15 copolymerizing 3 to 70% by weight of the first polymerizable unsaturated monomer containing an epoxy group with 30 to 97% by weight of the second polymerizable unsaturated monomer.

20 3. The cold setting coating composition according to claim 1, the vinyl copolymer (a) has a number average molecular weight of 1,000 to 100,000 and a glass transition temperature of 0 to 100°C.

25 4. The cold setting coating composition according to claim 1, the fatty acid component (b) has an iodine value of 50 to 200.

5. The cold setting coating composition according claim 1, wherein a ratio of the fatty acid component (b) is from 1 to 60 parts by weight based on 100 parts by weight of the vinyl copolymer (a).

6. The cold setting coating composition according claim 1, wherein an equivalent ratio of isocyanate group contained in the isocyanate group-possessing compound (c) to hydroxyl group contained in the reaction product (NCO/OH) is from 0.05 to 2.0.

7. The cold setting coating composition according claim 1 further comprises a polymer dispersion (B) obtained by polymerizing two or more of vinyl monomers in the presence of a dispersion stabilizer (d) in an organic liquid in which vinyl monomers are soluble and a polymer formed from the monomers is insoluble, wherein the dispersion stabilizer (d) is soluble in the organic liquid.

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8. The cold setting coating composition according to claim 7 comprises 10 to 90% by weight of the urethane-modified vinyl resin (A) and 90 to 10% by weight of the polymer dispersion (B) based on total solid matter weight of the resin (A) and the dispersion (B).

9. The cold setting coating composition according claim 7, the dispersion stabilizer (d) is a resin having an oxidatively polymerizable double bond.

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10. The cold setting coating composition according claim 9, the resin having an oxidatively polymerizable double bond is obtained by copolymerizing 5 to 70% by weight of a vinyl monomer having an oxidatively polymerizable double bond and 30 to 95% by weight of another vinyl monomer.

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11. The cold setting coating composition according claim 7, at least one of two or more of vinyl monomers is a multi-vinyl compound.

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